

0009-88

Instrument Control Number

BOOK 0806 PAGE 0941

Commonwealth of Virginia Land Record Instruments Cover Sheet - Form A

[ILS VLR Cover Sheet Agent 1.0.66]

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Date of Instrument: [08/22/16]

Instrument Type: [ODAR]

Number of Parcels [1]

Number of Pages [18]

City ☐ County ☒ [Russell County] (Box for Deed Stamp Only)

First and Second Grantors

Last Name	First Name	Middle Name or Initial	Suffix
[Virginia Gas & Oil Board]	[]	[]	[]
[]	[]	[]	[]

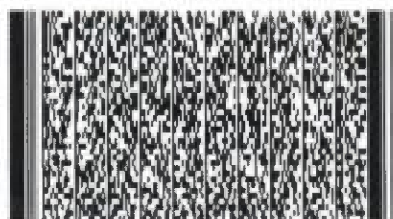
First and Second Grantees

Last Name	First Name	Middle Name or Initial	Suffix
[Enervest Operating, LLC]	[]	[]	[]
[]	[]	[]	[]

Grantee Address (Name) [Enervest Operating, LLC]
 (Address 1) [P. O. Box 2136]
 (Address 2) []
 (City, State, Zip) [Abingdon] [VA] [24212]
 Consideration [0.00] Existing Debt [0.00] Assumption Balance [0.00]

Prior Instr. Recorded at: City ☐ County ☒ [Russell County] Percent. in this Juris. [100]
 Book [] Page [] Instr. No []
 Parcel Identification No (PIN) []
 Tax Map Num. (if different than PIN) []
 Short Property Description [Report to the Board]
 Current Property Address (Address 1) []
 (Address 2) []
 (City, State, Zip) [] [] []

Instrument Prepared by [Virginia Gas & Oil Board]
 Recording Paid for by [DMME]
 Return Recording to (Name) [DMME - Division of Gas & Oil]
 (Address 1) [P. O. Drawer 159]
 (Address 2) []
 (City, State, Zip) [Lebanon] [VA] [24266]
 Customer Case ID [] [] []



INSTRUMENT PREPARED BY
VIRGINIA GAS AND OIL

ORDER RECORDED UNDER CODE
OF VIRGINIA SECTION 45.1-361.26

VIRGINIA:

BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT: **ENERVEST OPERATING, LLC**

VIRGINIA GAS AND
OIL BOARD
VGOB DOCKET NO.:
89-0126-0009-88

RELIEF SOUGHT:

MODIFICATION OF THE OGCB NORA GAS FIELD RULES ORDER, ENTERED MARCH 26, 1989, AS AMENDED, TO ALLOW MORE THAN ONE COALBED GAS WELL TO BE DRILLED IN THE UNITS IDENTIFIED ON EXHIBIT "A" HERETO

LEGAL DESCRIPTION:

DRILLING UNITS:

59AZ, 60AZ, 61AZ, 80BP, 81BP, 82BP and 84AT

LOCATED IN **BUCHANAN, RUSSELL, &
DICKENSON** COUNTIES, VIRGINIA;
SEE ANNEXED EXHIBIT "H2"

**REPORT OF THE BOARD
FINDINGS AND ORDER**

1. Hearing Date and Place: This matter came on for hearing before the Virginia Gas and Oil Board (hereinafter "Board") at 9:00 a.m. on July 19, 2016 at the Conference Center at the Russell County Office Facility, Lebanon, Virginia.

2. Appearances: Timothy E. Scott of McKinnis & Scott, appeared for the Applicant; and Paul Kugelman, Jr., Senior Assistant Attorney General was present to advise the Board.

3. Jurisdiction and Notice: Pursuant to Va. Code §§45.1-361.1 et seq., as amended, the Board finds that it has jurisdiction over the subject matter. Based upon the evidence presented by the Applicant, the Board also finds that the Applicant has (1) exercised due diligence in conducting a meaningful search of reasonably available sources to determine the identity and whereabouts of each gas and oil owner, coal owner, or mineral owner, or in the case of conflicting claims to the ownership of the

coalbed methane gas, each person identified by Applicant as a potential owner of the coalbed methane gas underlying the area described at paragraph 7.h below and in **Exhibit "B"** attached hereto; and (2) has given notice to all parties so identified (hereinafter sometimes "person(s)" whether referring to individuals, corporation, partnerships, associations, companies, businesses, trusts, joint ventures or other legal entities) and entitled by §§ 45.1-361.19 and 45.1-361.20, Virginia Code, as amended, to notice of the Application, and (3) that the persons listed in the Notice of Hearing are the persons so identified by the Applicant. Further, the Board has caused notice of this hearing to be published as required by § 45.1-361.19.B., Virginia Code, as amended. Whereupon, the Board hereby finds that the notices given satisfy all statutory requirements, Board rule requirements and the minimum standards of State due process.

4. Amendments and Dismissals: **None.**

5. Relief Requested: (1) Modification of the Nora Gas Field Rules to allow more than one coalbed methane gas well to be drilled within each of the Nora Field Drilling Units identified above and in **Exhibit "H2"** attached hereto; and (2) for an administrative order providing that additional well permits may be issued in the Nora Field after the Application is filed and while it is pending.

6. Relief Granted: Available data and the evidence adduced at the hearing support Applicant's position that the production from the pool underlying the Nora Coal Bed Gas Field Drilling Units in question would be enhanced and benefit from in-field drilling; accordingly,

a. With regard to the Drilling Units described above and in **Exhibit "H2"** hereto, the Nora Coal Red Gas Field Rules Order, OCGB order entered of March 26, 1989, is hereby amended to allow the Board's Designated Unit Operator in Drilling Units pooled by Board Order and the Well Operator/Permittee in voluntary Drilling Units to drill a total of two (2) wells, said total to include any previously permitted well(s), within the units affected by the Application and this Order;

b. In the event that an additional coalbed methane gas well(s) permitted and drilled after the entry of this order is located within the drilling window(s) of a Nora Coal Bed Gas Field Drilling Unit affected by this order, the production therefrom shall be solely attributed to and allocated to the Nora Drilling Unit within which the wells are located; and,

c. In the event a second well is proposed that is to be located outside the drilling window of any Nora Unit affected by this order and a permit application is submitted to the Division of Gas and Oil seeking such location exception, the Inspector shall assess the permit as follows:

(i) If a 58-acre square with the proposed well at its center lies entirely

within Nora Drilling Units which are voluntary in nature and are not subject to existing pooling order, the Inspector may grant or deny the location exception on a case-by-case basis according to standard procedures and provisions of the Nora Order which allow wells to be drilled outside the drilling windows; or

(ii) If a 58-acre square with the proposed well at its center lies entirely or partially within any Nora Drilling Unit(s) which is subject to existing pooling orders, the Inspector shall refer the permit application to the Board for its recommendations concerning correlative rights considerations, modification of pooling orders, and escrow provisions. Alternatively, the Unit Operator may present a pooling proposal directly to the Board prior to filing a permit application. No permit under this paragraph (ii) shall be issued until the Board has acted on the matter.

7. Special Findings:

a. Applicant's proposed field rule modification is not an unreasonable or arbitrary exercise of the owner's right to explore for or produce gas;

b. The Applicant's proposal would not unreasonably interfere with the present or future mining of coal or other minerals;

c. The acreage to be embraced in the Drilling Units affected by and/or created by this Modification Order shall be as set forth above and in **Exhibit "H2"** attached hereto.

d. The formations subject to this Modification Order are described in the OGCB Order entered March 26, 1989, as amended.

e. The boundaries of the Drilling Units are the same as heretofore established by the OGCB Order entered March 26, 1989, as amended.

f. Unit Operator's production simulations indicate that drilling of an additional well in each Unit could facilitate the recovery of an additional 500 MMCF of gas per Unit within ten (10) years of drilling.

g. The boundaries of any Drilling Units crated subsequent to this Modification Order shall he according to paragraph 6.c.ii. above and as defined by Board action specific to individual units.

h. The acreage subject to this Modification Order is depicted in **Exhibit "H2"** attached hereto:

i. Having considered the evidence presented, the Board found no reason to establish any allowable production rates for the wells contemplated by this Modification Order;

j. Except as herein specifically modified, the proposed Drilling Units in **Exhibit "H2"** shall be developed and produced in compliance with the OGCB Order entered on March 26, 1989 regarding the Nora Gas Field Rules, as amended.

k. This Modification Order shall be effective as of the date of the hearing, to wit: July 19, 2106.

8. Conclusion: The relief granted hereby will assist in enhancing production from existing wells, will assist in more efficiently recovering coalbed methane gas from the area in question, prevent waste by more effectively extracting the resource, and will continue to protect the correlative rights of all owners and claimants. Therefore, the relief and all terms and provisions set forth above be and are hereby granted and IT IS SO ORDERED.

9. Effective Date: July 19, 2016.

Bradley C. Lambert

Chairman, Bradley C. Lambert

COMMONWEALTH OF VIRGINIA
COUNTY OF RUSSELL

Acknowledged on this 4th day of August, 2016, personally before me a notary public in and for the Commonwealth of Virginia, appeared Bradley C. Lambert, being duly sworn did depose and say that he is the Chairman of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.

Sarah Jessee Gilmer
Sarah Jessee Gilmer, Notary Public
262946

My Commission expires: July 31, 2017

DONE AND PERFORMED this 5 day of August, 2016 by Order of the Virginia Gas and Oil Board.



Rick Cooper

Rick Cooper
Principal Executive to the
staff, Virginia Gas and Oil Board

COMMONWEALTH OF VIRGINIA
COUNTY OF RUSSELL

Acknowledged on this 5th day of August, 2016, personally before me a notary public in and for the Commonwealth of Virginia, appeared Rick Cooper, being duly sworn did depose and say that he is the Principal Executive to the staff of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.

Sarah Jessee Gilmer
Sarah Jessee Gilmer, Notary Public
262946

My Commission expires: July 31, 2017



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55AW	56AW	57AW	58AW	59AW	60AW	61AW	62AW	63AW	64AW	65AW
55AX	56AX	57AX	58AX	59AX	60AX	61AX	62AX	63AX	64AX	65AX
55AY	56AY	57AY	58AY	59AY	60AY	61AY	62AY	63AY	64AY	65AY
55AZ	56AZ	57AZ	58AZ	59AZ	60AZ	61AZ	62AZ	63AZ	64AZ	65AZ
55BA	56BA	57BA	58BA	59BA	60BA	61BA	62BA	63BA	64BA	65BA
55BB	56BB	57BB	58BB	59BB	60BB	61BB	62BB	63BB	64BB	65BB
55BC	56BC	57BC	58BC	59BC	60BC	61BC	62BC	63BC	64BC	65BC
56BD	56BD	57BD	58BD	58BD	58BD	58BD	58BD	58BD	58BD	58BD

Dickenson Co.

EXHIBIT H-2

ENERVEST OPERATING, LLC
INCREASED DENSITY DRILLING
NORA FIELD
Page Number 6.

PROPOSED UNITS



Date: 6/7/2016

76BM	77BM	78BM	79BM	80BM	81BM	82BM	83BM	84BM	85BM	86BM
76BN	77BN	78BN	79BN	80BN	81BN	82BN	83BN	84BN	85BN	86BN
76BO	77BO	78BO	79BO	80BO	81BO	82BO	83BO	84BO	85BO	86BO
76BP	77BP	78BP	79BP	80BP	81BP	82BP	83BP	84BP	85BP	86BP
76BQ	77BQ	78BQ	79BQ	80BQ	81BQ	82BQ	83BQ	84BQ	85BQ	86BQ
76BR	77BR	78BR	79BR	80BR	81BR	82BR	83BR	84BR	85BR	86BR
76BS	77BS	78BS	79BS	80BS	81BS	82BS	83BS	84BS	85BS	86BS
76BT	77BT	78BT	79BT	80BT	81BT	82BT	83BT	84BT	85BT	86BT

Dickenson Co.

Buchanan Co.

Russell Co.

EXHIBIT H-2

ENERVEST OPERATING, LLC
INCREASED DENSITY DRILLING

NORAFIELD
Page Number 7.

PROPOSED UNITS

Date: 6/15/2016

79AQ	80AQ	81AQ	82AQ	83AQ	-1BB	0BB	1BB	2BB	3BB	4BB	5BB
79AR	80AR	81AR	82AR	83AR	83AQ	0CC	1CC	2CC	3CC	4CC	5CC
79AS	80AS	81AS	82AS	83AS	83AT	84AR	85AR	86AR	87AR	88AR	89AR
79AT	80AT	81AT	82AT	83AT	84AT	85AT	86AT	87AT	88AT	89AT	89AS
79AU	80AU	81AU	82AU	83AU	84AU	85AU	86AU	87AU	88AU	89AU	
79AV	80AV	81AV	82AV	83AV	84AV	85AV	86AV	87AV	88AV	89AV	
79AW	80AW	81AW	82AW	83AW	84AW	85AW	86AW	87AW	88AW	89AW	
79AX	80AX	81AX	82AX	83AX	84AX	85AX	86AX	87AX	88AX	89AX	

Buchanan Co.

EXHIBIT H-2

ENERVEST OPERATING, LLC
INCREASED DENSITY DRILLINGNORA FIELD
Page Number 8.

PROPOSED UNITS



Date: 6/7/2016

Map View of Nora CBM Field Increased Density Drilling Previously Board Approved

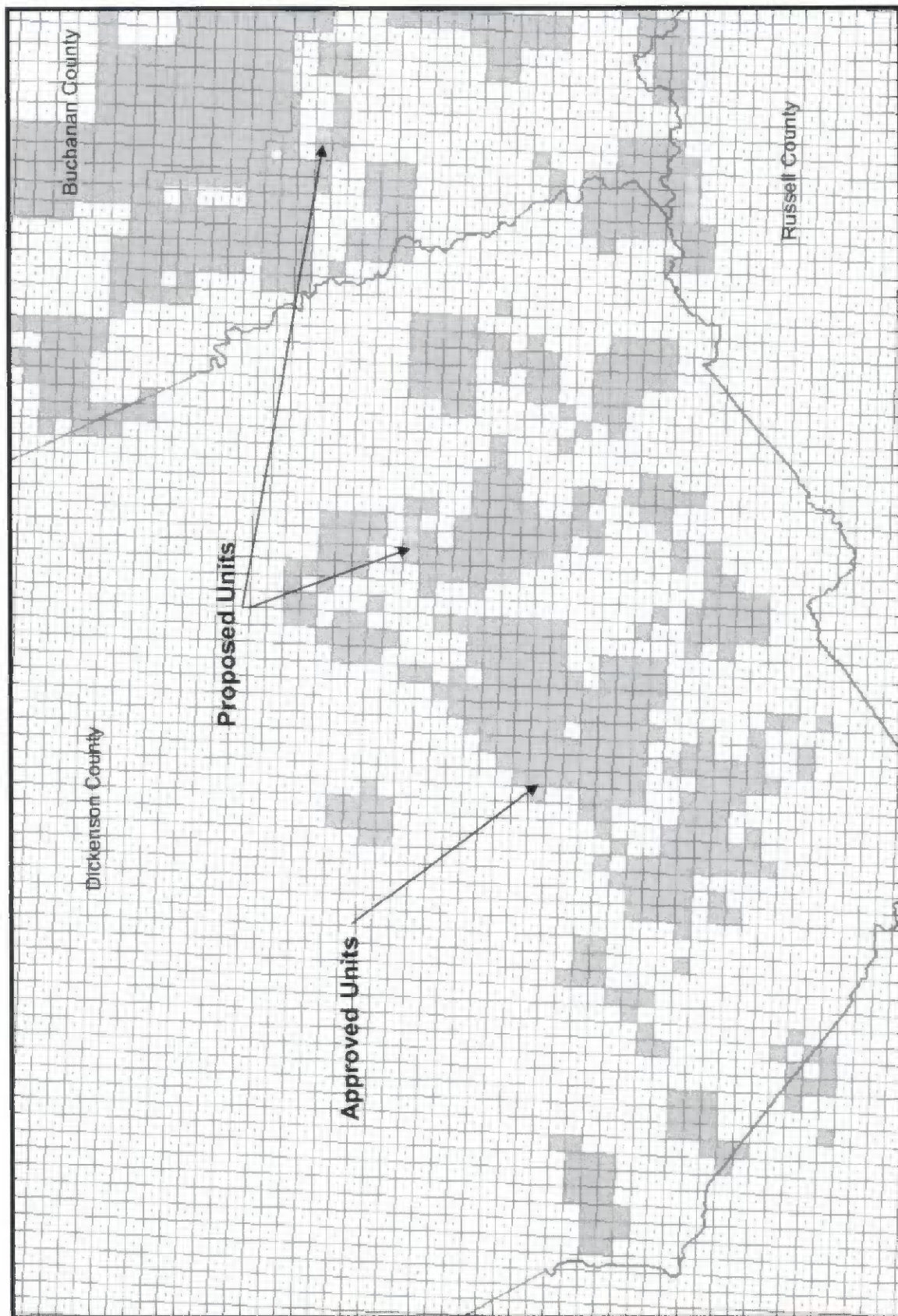


EXHIBIT K (pg 1)

Map View of Nora CBM Field Increased Density Drilling Completed to Date

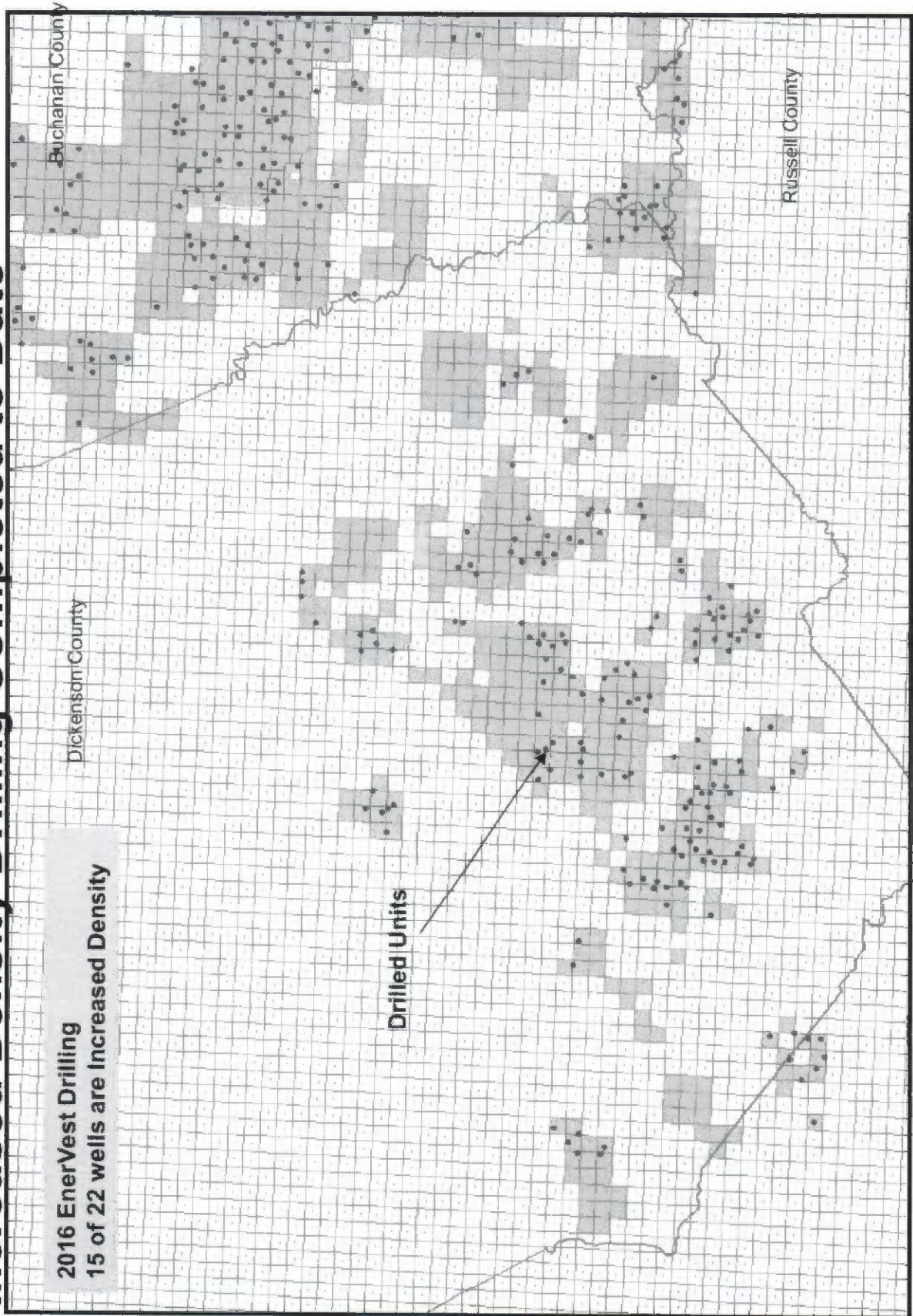


EXHIBIT K (pg 2)

Close up - Map View of Nora Increased Density Areas

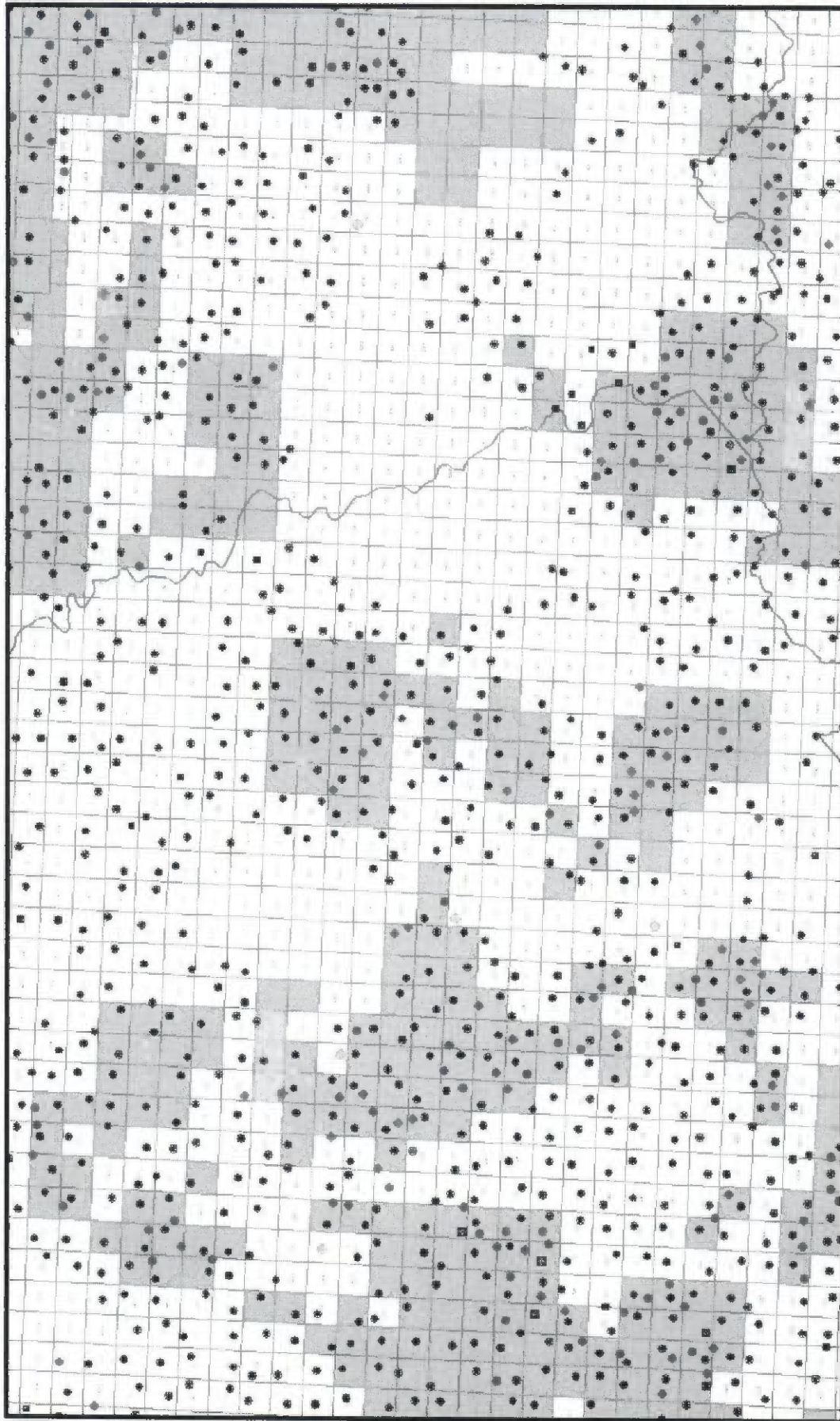
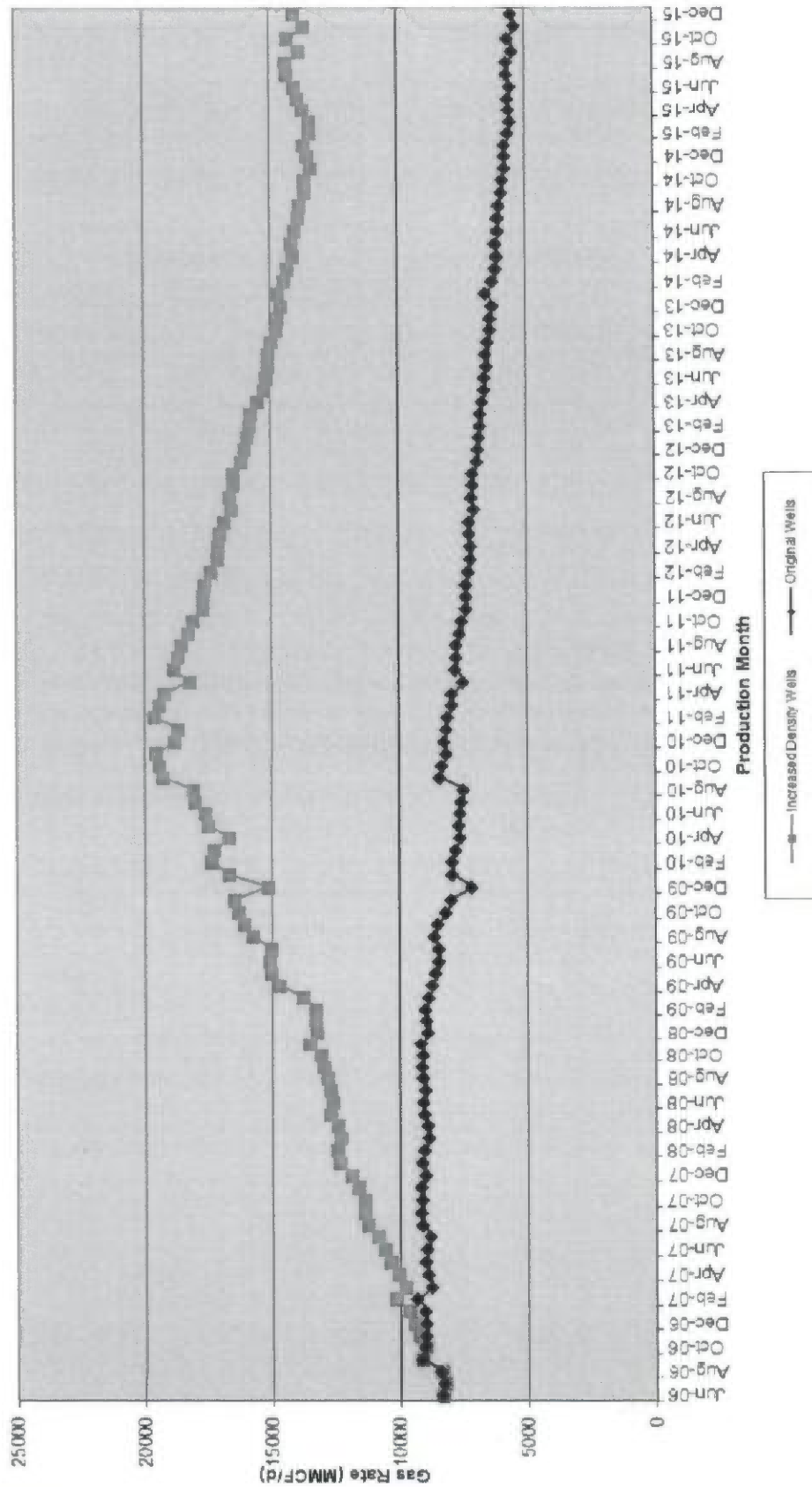


EXHIBIT K (pg 3)

Increased Density Drilling Nora Field Thru 12-2015



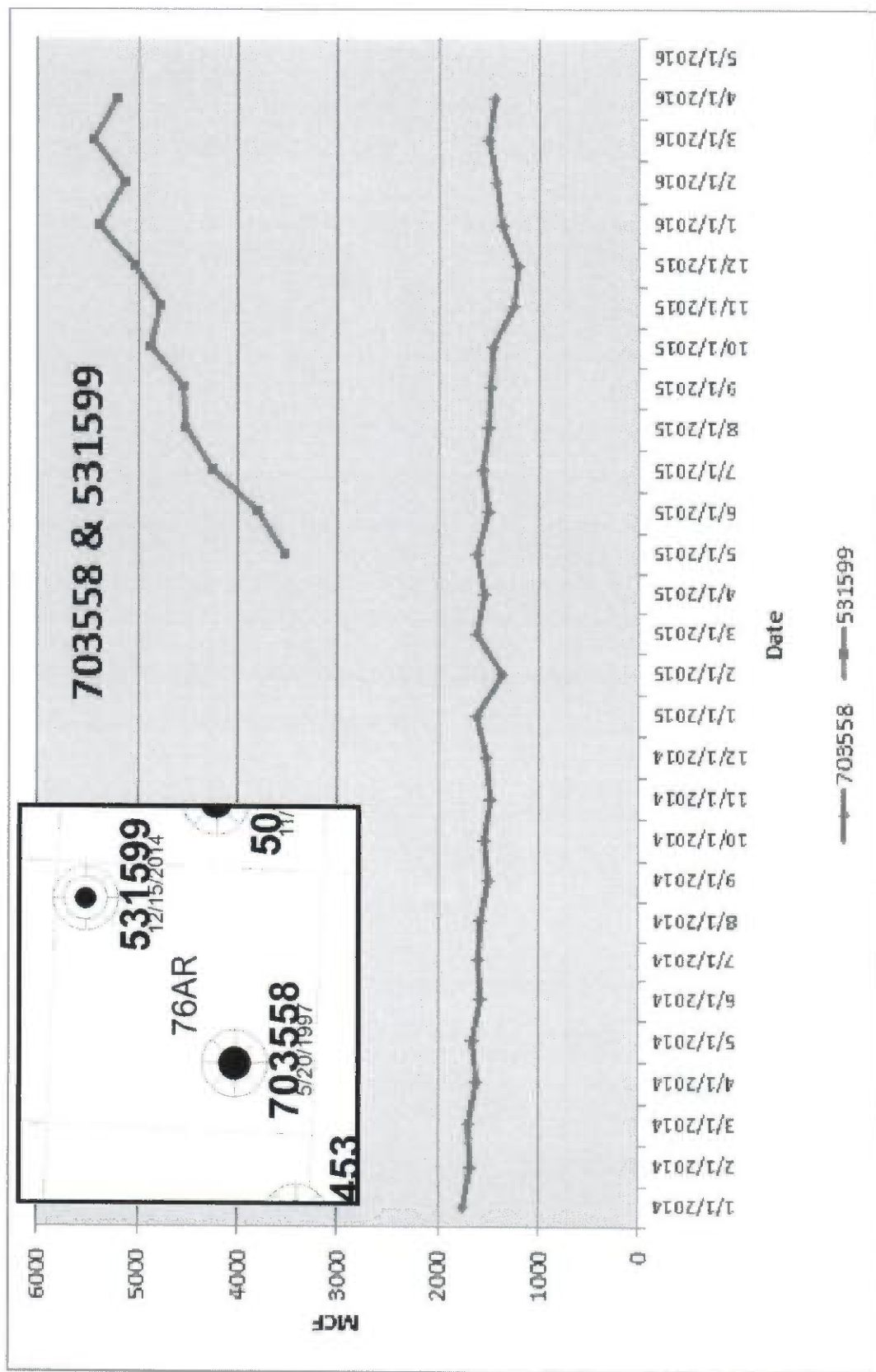
Benefits of Increased Density Drilling

- Increase fracturing network promoting gas flow at low pressure
- Decrease de-watering time frame
- Increase recovery factor of reservoir
- Reservoir production achieved faster and more economical
- No significant negative impact to 1st well production, generally see improvement in existing production

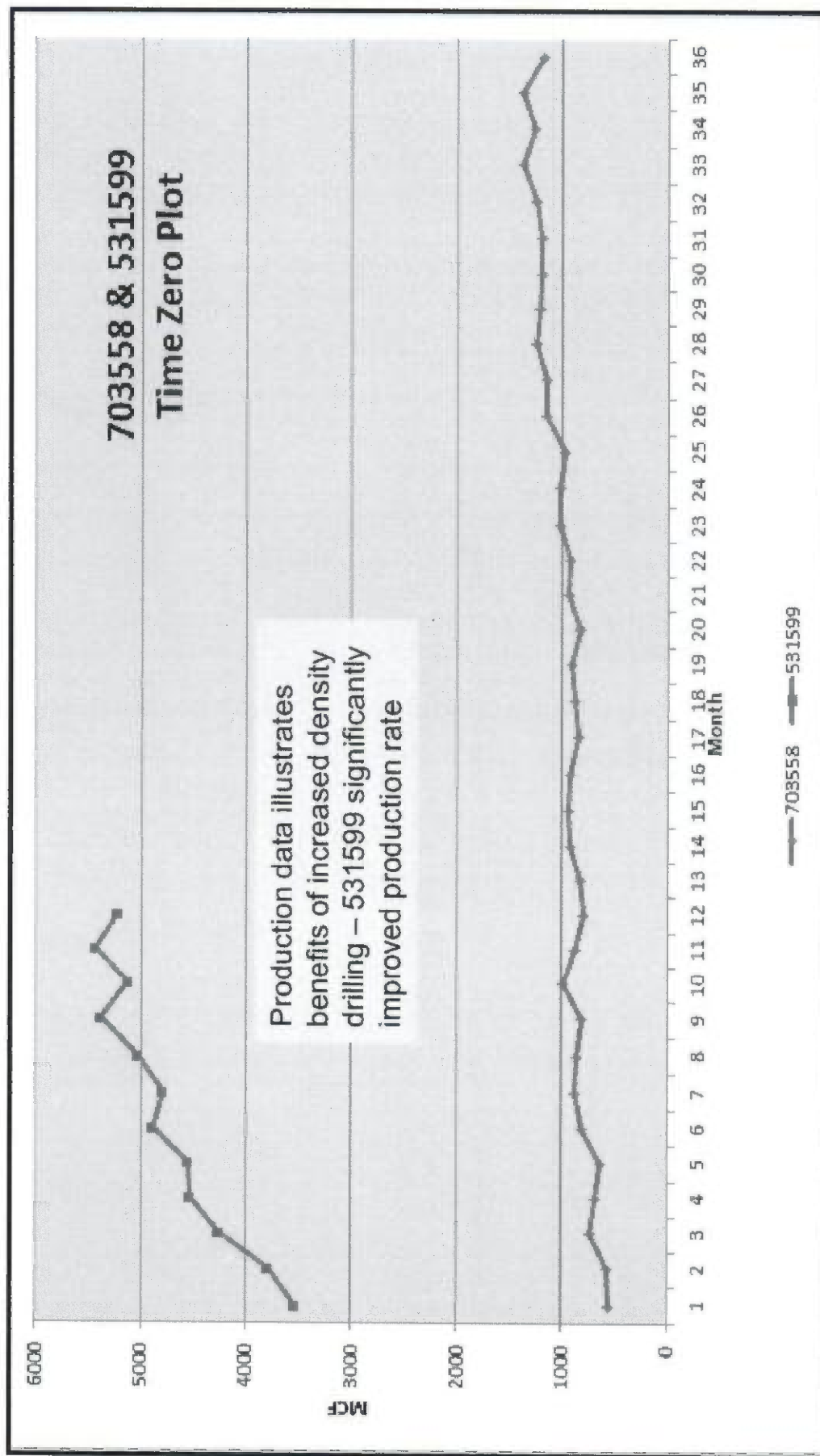
Infill drilling from 2006 – 2015
Production represents 196 units

EXHIBIT K (pg 4)

Recent Example of Increased Density Drilling



Recent Example of Increased Density Drilling



Summary of Increased Density Drilling

- Working Interest Owners, Royalty Owners, and the State will benefit by maximizing production**
- Promote conservation of the gas resource and prevent waste by more effectively extracting the resource**
- Allow for shared facilities such as roads, pipelines, etc. to help minimize environmental impact**
- No correlative rights issues within proposed units**

Map View of Area Coal Mine Activity

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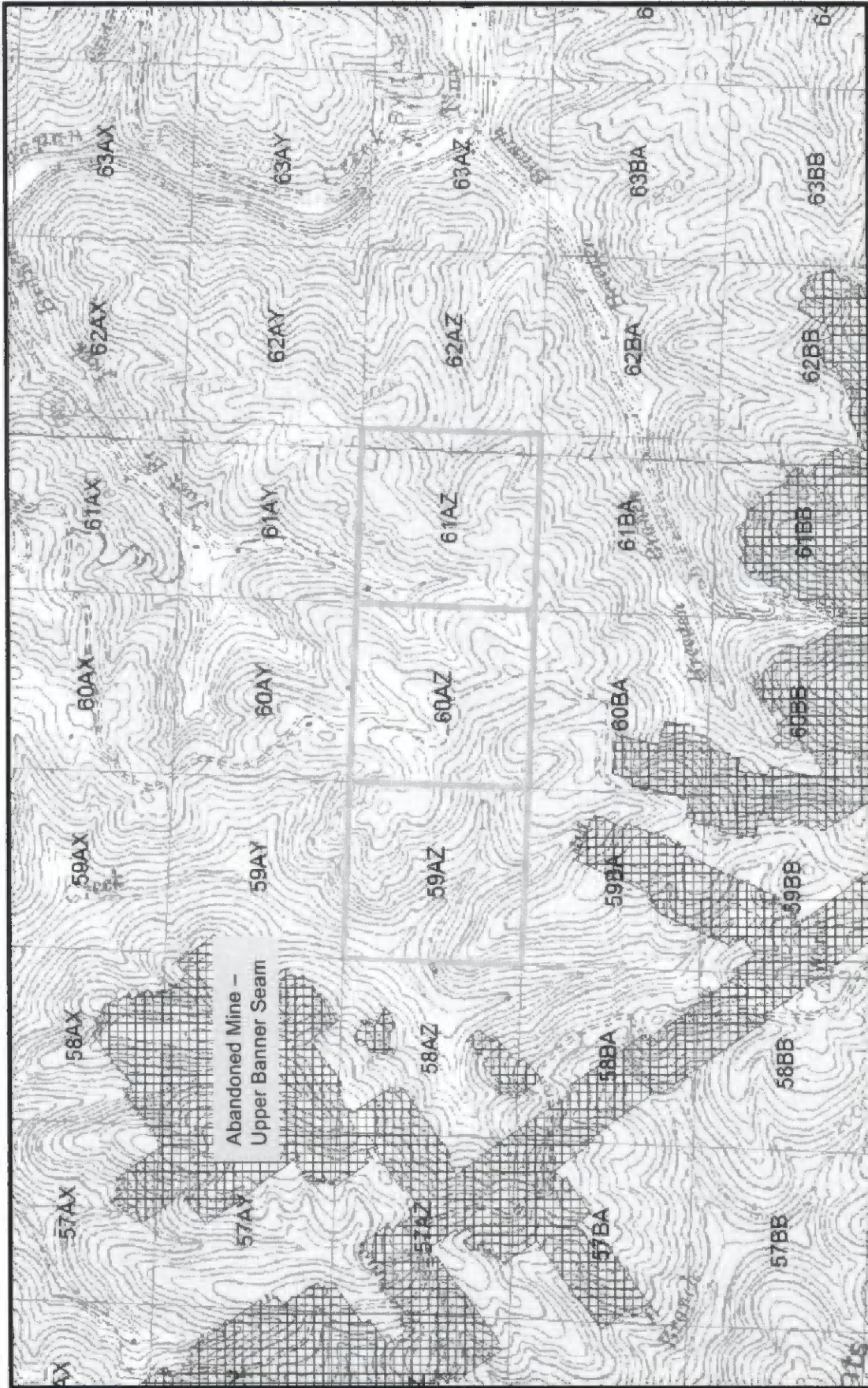


EXHIBIT K (pg 8)

Map View of Area Coal Mine Activity



EXHIBIT K (pg 9)

Map View of Area Coal Mine Activity



EXHIBIT K (pg 10)

Page Number 18.

1601631

VIRGINIA: IN THE OFFICE OF THE CLERK OF THE CIRCUIT OF RUSSELL COUNTY, 8-23, 2016. This deed was this day presented in said office, and upon the certificate of acknowledgment thereto annexed, admitted to record at 1:10 o'clock P. M, after payment of \$ 1 tax imposed by Sec. 58.1-802.

Original returned this date to: Sarah Gilmer

TESTE: ANN S. McREYNOLDS, CLERK

BY: Ann S. McReynolds CLERK

160001480

INSTRUMENT #160000986
RECORDED IN THE CLERK'S OFFICE OF
DICKENSON ON
AUGUST 24, 2016 AT 10:28AM

RICHARD W. EDWARDS, CLERK
RECORDED BY: TLF

INSTRUMENT #160001480
RECORDED IN THE CLERK'S OFFICE OF
BUCHANAN COUNTY ON
AUGUST 23, 2016 AT 03:46PM

BEVERLY S. TILLER, CLERK
RECORDED BY: GGB